

of the fifty years, 1841-1890. The highest air temperature in the shade was $85^{\circ}1$ on July 17, and the lowest $12^{\circ}0$ on January 10. The mean monthly temperature in 1891 was below the average in all months excepting June, September, October, December. In January it was below the average by $4^{\circ}4$, in April and August by $3^{\circ}0$, and in May by $2^{\circ}8$.

The mean daily motion of the air in 1891 was 278 miles, being 4 miles below the average of the preceding twenty-four years. The greatest daily motion was 960 miles on December 10, and the least 34 miles on February 23 and 24. The greatest pressure registered was 31.5 lbs. on the square foot on November 11. On December 10 the pressure plate was not in action.

The number of hours of bright sunshine recorded during 1891 by the Campbell-Stokes sunshine instrument was 1222, which is about 66 hours below the average of the preceding fourteen years, after making allowance for difference of the indications with the Campbell and Campbell-Stokes instruments respectively. The aggregate number of hours during which the sun was above the horizon was 4454, so that the mean proportion of sunshine for the year was 0.274, constant sunshine being represented by 1.

The rainfall in 1891 was 25.0 inches, being 0.5 inches above the average of the preceding fifty years.

Chronometers, Time Signals, and Longitude Operations.—The number of chronometers and deck watches now being tested at the Observatory is 157 (91 box chronometers, 19 pocket chronometers, and 47 deck watches). The annual competitive trial of chronometers commences on July 2, and the trial of deck watches on October 22.

In the year ending 1891 May 10, the average daily number of chronometers and deck watches being regularly rated was 243, the total number received was 765, the total issued 750, and the number set to repair 442.

At the annual trial of chronometers the performance was good, the average trial number of the first six was 21.4, which compares favourably with those of previous years.

The dropping of the time-balls is next referred to. The Greenwich one was not raised on October 14, December 10 and 13, 1891, owing to the violence of the wind; on April 1, 1892, the springs of the mean solar clock failed to act, and on October 19 and November 22 failure in the connections was the cause.

The return signal from Deal was interrupted last November several times, owing to an accumulation of grease which had been applied to the piston. Signals from Devonport clock failed on 51 days, and those from the Westminster clock on 14 days.

The publication of the observations for the Paris-Greenwich longitude in 1888, and of those for the Dunkerque-Greenwich longitude in 1889, has been delayed pending a redetermination of the former longitude which was commenced on June 6 of the present year; and it is hoped to settle several questions of importance raised by the discussion of the results obtained in 1888.

The first stage of the operations for the longitudes Montreal-Canso-Waterville-Greenwich was completed on May 23. The time of transmission along the cable Waterville-Canso was about a quarter of a second—a result confirmed by a rough comparison of signals on 1892 May 11. Prof. McLeod, of Montreal, paid a similar preliminary visit to Canso in 1891 June, and found an accordant value for the time of transmission. Four portable transits were used for the time determinations. These latter were made in all on 14 nights at Greenwich, 12 at Waterville, and about the same number at Canso and Montreal. The preliminary reduction gives every promise of satisfactory accuracy at Greenwich and Waterville.

Captain Grant, R.E., has been at work at the Observa-

tory practising the requisite transit observations for determining the boundary of Mashonaland.

In the Astronomer-Royal's general remarks at the conclusion of his report, he refers to a plan he has devised for making observations out of the meridian with a transit-circle. He proposes to have it so constructed that by means of a turn-table it can be placed and firmly fixed in certain definite azimuthal, the instrument "being used essentially as a transit-circle for a complete series of observations in the selected azimuths plane." This instrument, as he says, would advantageously replace the existing altazimuth, and could be used "not only for the important object of making extra-meridian observations of the moon but also for observations of the sun, planets, and stars (in the meridian as well as out of the meridian), for the elimination, as far as practicable, of systematic errors, and for the more accurate determination of astronomical constants." The aperture of the instrument he suggests should be 8 inches, with circles of 3 feet diameter, read by four microscopes, and he thinks that a suitable position for it could be found about 90 feet north of the declination magnet, where "an unobstructed view could be secured by mounting it with its axis at a height of about 20 feet above the ground."

NOTES.

THE Ladies' *Soirée* of the Royal Society is being held this evening as NATURE goes to press.

THE annual meeting of the American Association for the Advancement of Science will be held at Rochester, N.Y., from August 18 to 24.

THE late Dr. W. J. Walker placed at the disposal of the Boston Society of Natural History a grand honorary prize "for such investigation or discovery as may seem to deserve it, provided such investigation or discovery shall have been made known or published in the United States at least one year previous to the time of award." This prize has been unanimously awarded to Prof. James D. Dana. In recognition of the value of Prof. Dana's scientific work, and in testimony of the Society's high appreciation of his services to science, the maximum sum of one thousand dollars has been awarded.

In the new number of the *Journal of the Marine Biological Association* Mr. Ernest W. L. Holt gives an interesting account of the work he has lately done in connection with his North Sea investigations. The objects of these investigations, as explained in the report of Mr. Calderwood, the Director of the Plymouth Laboratory, are:—(1) to prepare a history of the North Sea trawling grounds, comparing the present condition with the condition say twenty or thirty years ago, when comparatively few boats were at work; (2) to continue, verify, and extend operations as to the average sizes at which the various food-fishes become sexually mature; (3) to collect statistics as to the sizes of all the fish captured in the vicinity of the Dogger Banks and the region lying to the eastward, so that the number of immature fish annually captured may be estimated; (4) to make experiments with beam trawl nets of various meshes, with a view to determine the relation, if any, between size of mesh and size of fish taken. It is obvious that a considerable time must elapse before trustworthy data can be collected on all these points by one inquirer. Mr. Calderwood therefore notes that in Mr. Holt's early reports it has been thought advisable not to treat each heading in detail, since one season of the year may be more suitable for collecting information on one point than on another, but rather simply to state the results of work accomplished. During the spawning season most attention must necessarily be given to heading No. 2, so that in Mr. Holt's present report the relation of size to immaturity is principally mentioned. Work of a similar nature done by Mr. Holt himself in Ireland, by Dr. Fulton in Scotland,

and by observers at Plymouth, shows that a very considerable variation takes place in the sizes at which fishes become sexually mature in different localities, and Mr. Calderwood thinks it is probably not too much to say that as surely as legislation will have to be resorted to for the preservation of fish until they have spawned, so surely will the matter have to be studied for each coast separately.

MR. CALDERWOOD records in his report that the demand on the Plymouth Laboratory for specimens to be used in laboratories and museums throughout the country increases, and requires constant attention. The Laboratory can supply specimens which, in very many cases, could not otherwise be obtained. The proper preservation of certain classes of soft animals is in itself an art developed during the last fifteen years, almost entirely by the persevering efforts of Signor Lo Bianco, of Naples. Within the past year these methods have been published, and it is hoped that with practice the specimens sent out from the Plymouth Laboratory may gradually gain the character so long possessed by the Naples specimens alone.

AT the general monthly meeting of the Royal Institution on Monday, June 13, the special thanks of the members were returned for the following donations:—Mrs. Bloomfield Moore, £80, Sir David Salomons, Bart., £50, Mr. Charles Hawksley, £50, for carrying on investigations on liquid oxygen.

A COMMITTEE appointed by the Botanical Club of Washington to consider the questions of a botanical congress and botanical nomenclature has lately presented its report, which the Club has unanimously adopted. While favouring the final settlement of disputed questions by means of an international congress, the committee do not regard the present as an opportune time. They recommend the reference of the question of plant nomenclature first to a representative body of American botanists, and suggest the consideration, by such a body, of various questions. Among these questions are the following: the law of priority, an initial date for genera, an initial date for species, the principle "once a synonym always a synonym," what constitutes publication?, the form of ordinal and tribal names, and the method of citing authorities.

THE anticyclone, which at the time of our last issue had lain over these islands for some days, then began gradually to give way, and in the night of the 9th northerly winds and cloudy weather set in over Scotland, while depressions formed over England, causing thunderstorms in this country and in Ireland, with heavy rainfall in places, as much as 1·1 inch being measured at Mullaghmore during the twenty-four hours ending 8h. a.m. on Saturday, the 11th. These changes in the distribution of pressure caused great fluctuations of temperature; the maxima observed over Scotland on the 10th were in some cases as much as 30° lower than those of the previous day, while in England, on the 11th and 12th, a still larger decrease of temperature was experienced. A small depression which lay over the south-east of England on Sunday, caused a steady rain for some hours in that part of the country; the maximum temperature registered in London was 51°, being about 18° below the average maximum for June. In fact, so low a maximum temperature has not occurred in London, in June, for at least a quarter of a century. On the night of the 19th the temperature on the grass fell to 29° at Oxford. During the early part of the present week an anticyclone, lying to the westward, extended over the western and northern parts of the country, and a large depression appeared to the southward of these islands, causing moderate northerly and north-easterly breezes, while temperatures continued low in all parts of the country.

THE Meteorological Council have just issued, as the completing portion of the *Weekly Weather Report* for 1891, tables giving improved monthly and annual means of temperature, rainfall,

and bright sunshine for all the stations (65 in number) used in the preparation of that publication. The large amount of labour expended on the calculations, and the trustworthiness of the values may be judged of from the fact that the temperature means extend over 20 years, the rainfall over 25 years, and the sunshine over 10 years. A glance at the figures at any station is sufficient to show the chief characteristics of its climate, as compared with any other locality. They show that London has the highest mean maximum temperature in July, 72°·4; Cambridge, the lowest mean minimum, 31°·6 in December, although several other stations have a mean minimum of 31°·7 in that month, and Cambridge and Hillington have 31°·7 and 31°·8 respectively in January. The wettest station is Laudale, N.B., with an annual rainfall of 79°·57 inches, and the driest, Spurn Head, 20°·92 inches. The stations with most and least sunshine are Jersey and Glasgow respectively, the deficiency of the latter being due to smoke.

DR. J. HANN laid before the Academy of Sciences at Vienna, on May 5, another of those elaborate investigations for which he is so well-known, entitled "Further Researches into the Daily Oscillations of the Barometer." The first section of the work deals with a thorough analysis of the barometric oscillations on mountain summits and in valleys, for different seasons, for which he has calculated the daily harmonic constituents, and given a full description of the phenomena, showing how the amplitude of the single daily oscillation first decreases with increasing altitude, and then increases again with a higher elevation. The epochs of the phases are reversed at about 6000 feet above sea-level as compared with those on the plains. The minimum on the summits occurs about 6h. a.m., and in the valleys between 3h. and 4h. p.m. The double daily oscillation shows, in relation to its amplitude on the summits, nearly the normal decrease, in proportion to the decreasing pressure, but the epochs of the phases exhibit a retardation on the summits, of as much as one or two hours. In the tropics, however, this retardation is very small. He then endeavours to show that these modifications of the daily barometric range on mountain summits are generally explained by the differences of temperature in the lower strata of air. In connection with this part of the subject, he considers that even the differences in the daily oscillations at Greenwich and Kew are mostly explained by the different altitude of the two stations, and by the fact that Greenwich is on an open hill. In the second section he has computed the harmonic constants for a large number of stations not contained in his former treatise of a similar nature, including some valuable observations supplied by the Brazilian Telegraph Administration, and others at various remote parts of the globe.

A SECOND attempt is to be made to build an Observatory at the top of Mont Blanc. As the workmen who tunnelled last year through the snow just below the summit did not come upon rock, M. Janssen has decided that the building shall be erected on the frozen snow. A wooden cabin was put up, as an experiment, at the end of last summer, and in January and early in the spring it was found that no movement had occurred. According to the Lucerne correspondent of the *Times*, the Observatory is to be a wooden building 8 metres long and 4 metres wide, and consisting of two floors, each with two rooms. The lower floor, which is to be embedded in the snow, will be placed at the disposition of climbers and guides, and the upper floor reserved for the purposes of the Observatory. The roof, which is to be almost flat, will be furnished with a balustrade, running round it, together with a cupola for observations. The whole building will rest upon six powerful screw-jacks, so that the equilibrium may be restored if there be any displacement of the snow foundations. The building is now being made in Paris, and will shortly be brought in sections to Chamounix. The transport of the building from Chamounix to the summit of

Mont Blanc and its erection there have been intrusted to the charge of two capable guides—Frederick Payot and Jules Bossonay.

LECTURES on subjects of great practical interest are being delivered daily in connection with the International Horticultural Exhibition. Mr. H. Cheshire will lecture to-day on "Guano: its origin and composition, use and abuse." Among the subjects of other lectures for which arrangements have been made are "The relation of insects to flowers," "Strawberry culture," and "The tomato: its diseases," by Prof. F. L. Cheshire; "Hatching: the management of the brooding hen," by Mr. W. Cook; and "Plant food and the formation of composts," by Mr. H. Cheshire.

DR. W. L. ABBOT has prepared for the Smithsonian Institution an excellent descriptive catalogue of the collection of ethnographical objects from Kilima-Njaro, presented by him to the National Museum. Dr. Abbot expresses his belief that Kilima-Njaro, with its cool, healthy, and bracing climate, will some day be a great sanatorium for Europeans from the hot and fever-stricken coast regions. He would be sorry, however, to see civilization invade this region, and hopes the day may be far distant when a railway shall open the way into the interior, and drive off "the herds of game that still pasture within sight of Africa's great snow mountains."

MESSRS. JOSEPH BAER AND CO., booksellers, Frankfort, are selling the botanical library of the late Prof. L. Just, director of the botanica garden connected with the Polytechnicum at Carlsruhe. The list includes many important works in various departments of botanical science.

MR. L. RYBOT writes to us from Southampton that he caught a very perfect specimen of the rare crimson speckled *Deliopeia pulchella*, on the afternoon of Friday last (June 10), in a field on the right bank of the Itchen, not far from Southampton.

IN 1874 the British Association published a volume of "Notes and Queries on Anthropology," the object being to promote accurate anthropological observation on the part of travellers, and to enable those who were not anthropologists themselves to supply information wanted for the scientific study of anthropology at home. A second edition has long been wanted, and a Committee was appointed by the British Association to consider and report on the best means for bringing the volume up to the requirements of the present time. The Committee recommended that the work should be transferred to the Anthropological Institute, and this proposal was accepted, the Association making grants amounting to £70 to aid in defraying the cost of publication. The new edition has now been issued, the editors being Dr. J. G. Garson and Mr. C. H. Read; and every one who may have occasion to use it will find it thorough and most suggestive. The first part—Anthropography—has been entirely recast; the second part—Ethnography—has been revised, and additional chapters have been written. Among the contributors to the volume are Mr. F. Galton, Mr. A. W. Franks, Dr. E. B. Tylor, General Pitt-Rivers, and many other well-known authorities.

MR. CYRUS THOMAS announces in *Science*, of May 27, that he has discovered the key which will unlock the mystery of the Maya codices, and, probably, the Central American inscriptions. The progress of decipherment will be slow, but he is confident that it will be ultimately accomplished. He has already determined the signification of some dozens of characters, and in several instances ascertained the general sense of a group forming a sentence, although there are a number of conventional symbols. Mr. Thomas holds that the great majority of the characters are truly phonetic, and that the writing is of a higher grade than has hitherto been supposed.

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THE members of the Johns Hopkins Marine Station accumulated during the summer of 1891, in addition to the results of their special researches, many general observations upon the fauna of Jamaica. These notes are printed in the April number of the Johns Hopkins University Circulars, and will be of considerable service to any one who may desire to obtain what is called in the Circular "a preliminary view of the material."

THE new number of the *Internationales Archiv für Ethnographie*, contains interesting notes (in English) by A. Ernst, Caracas, on some stone-yokes from Mexico. R. Parkinson contributes (in German) a paper on tattooing among the natives of the district Siarr, on the east coast of New Mecklenburg, New Ireland. A paper on the development and geographical distribution of the various types of building in use among Finnish peoples is contributed by Axel O. Heikel, of Helsingfors. The illustrations, as usual, have been carefully prepared.

THE Society for Promoting Christian Knowledge has issued a fresh series of coloured representations of plants. They have been printed in Germany, and ought to be of good service to students and teachers of botany.

THE first volume of "A Treatise on Hygiene," edited by Dr. Thomas Stevenson and Mr. Shirley F. Murphy, will shortly be issued by Messrs. J. and A. Churchill. It consists of articles, by eminent writers, on many different phases of hygienic science. The second volume is in the press.

MR. C. F. MABERY gives in *Science*, of May 13, a full account of the new chemical laboratory of the Case School of Applied Science, Cleveland, Ohio. In devising plans for the laboratory, Mr. Mabery felt that while it was not good economy to construct a building several times larger than present needs demanded, it was important to provide for the possibility of unlimited extension. A plain, rectangular form was therefore designed, and it was found that extension of the main hall into a wing of any size would not interfere with a convenient arrangement of the rooms for present use.

ICEBERGS seem to be unusually plentiful in the Atlantic this year. According to a writer in the *Times*, the log of the Inman liner *City of Berlin*, which arrived on the 3rd inst., shows how dangerously close to the Transatlantic path the icebergs are hovering. On the afternoon of May 31, about 5.45 o'clock, the *City of Berlin* was in latitude 50° 20', longitude 42° 15'. It was a clear and pleasant evening, and almost all the passengers were on deck. About 5 o'clock the air became very chilly, and the temperature of the water was very low. Captain Land at once suspected icebergs, and steered a more southerly course in the hope of avoiding them. About 6 o'clock, only a few miles to the north, a towering double-pinnacled berg was sighted. The berg was fully 200 feet high and about 600 feet long. Twenty minutes later another berg was sighted on a direct line with the first; between 6 and 8.30 o'clock four bergs were sighted. None of them was less than 100 feet high and 300 feet long; all were in a good state of preservation, and looked as though they would be able to drift about for some time. Icebergs have also been sighted by other vessels.

THE Todas, inhabiting the Nilgiri plateau, are not dying out gradually, as has long been supposed. The last census figures show that they have increased by no less than 10 per cent. during the last ten years, there being now nearly eight hundred of them altogether.

IN the new number of the Journal of the Straits Branch of the Royal Asiatic Society there is an interesting note on the little insectivore, *Tupaia javanensis*. It is very common in Singapore, and especially in the Botanic Gardens, where it may be often seen running about among the trees. It is easily mis-

taken for the common little squirrel (*Sciurus hippurus*), of which it has much the appearance. When alarmed it quickly darts up the trunk of the nearest tree, but it is a poor climber, and never seems to go high up like the squirrel. Besides these points of resemblance, it appears to be largely frugivorous. It was found that the seeds sown in boxes were constantly being dug up and devoured by some animal, and traps baited with pieces of coco-nut or banana were set, and a number of tupaia were caught. These being put into a cage appear to live very comfortably upon bananas, pine-apple, rice, and other such things; refusing meat. The Rev. T. G. Wood, in his "Natural History," states that *T. ferruginea* is said to feed on beetles, but to vary its diet with certain fruits. The common species at Singapore seems to be almost entirely frugivorous, though its teeth are those of a typical insectivore.

THE thirtieth Bulletin of the Botanical Department, Jamaica, contains a careful paper, which ought to be very useful, on the sugar-cane borer, by which much damage is being done in sugar plantations. The author is Mr. T. D. A. Cockerell, Curator of the Institute of Jamaica. Another contributor to the Bulletin, writing of gardening in Jamaica, mentions that about a year ago Messrs. Cannel and Sons, Swanly, Kent, sent her some small plants of chrysanthemums by post. They were all new and valuable; and the English season being so short, Messrs. Cannel and Sons begged her to try whether she could succeed in getting seed from these for them, offering to send her a collection of choice chrysanthemums in repayment of her trouble should she be successful. Out of the six plants one died, killed by a grub; the rest turned out magnificent, blowing with a profusion such as she had seldom seen before—they were perfect umbrellas of bloom; but the flowers died off without seeding. The plants then threw out a perfect little forest of offsets, and she finds that any cuttings broken off from the old plants will root easily.

A METHOD of rabbit-destruction which has been tried with considerable success in the Hay district, is recommended by the *Agricultural Gazette of New South Wales* as worthy of the consideration of pastoralists throughout the colony, more especially where the rainfall is light. The destroying agent is poisoned water, which is prepared as follows:—Cover 1 ounce of strychnine with concentrated hydrochloric acid, or what is commonly known as strong muriatic acid or spirits of salts, and leave to soak all night. The mixture easily dissolves in half a gallon of boiling water. After making the solution, bottle off and use as required. A pint of the mixture will poison 60 gallons of cold water; possibly a weaker mixture might be efficacious. This system has been adopted at Benerambah Station, sixteen shallow 8- to 10-gallon troughs being used to each tank, and the number of rabbits poisoned at each tank nightly is stated to be 10,000. In the Mossiel district no less than 27,000 rabbits were destroyed in two weeks by the use of poisoned water.

THE idea of flower-farming for perfumes seems to be exciting a good deal of interest in New South Wales, as many inquiries on the subject have lately been submitted to the Agricultural Department. There are at present in the colony no means of illustrating the practical operations of this industry, but the *Agricultural Gazette of New South Wales* hopes that this deficiency will soon be supplied by the institution of experimental plots on one or more of the experimental farms. The *Gazette* points out that in scent farms large quantities of waste material from nurseries, gardens, orchards, and ordinary farms might be profitably utilized, while occupation would be found for some who are unfit for hard manual labour. A Government perfume farm was lately established at Dunolly, in Victoria, and this promises to be remarkably successful.

At the meeting of the Field Naturalists' Club of Victoria on March 14, Prof. Baldwin Spencer, the President, gave an

interesting account of a trip he had made to Queensland in search of *Ceratodus*. Special interest attaches to this form, since it is the Australian representative of a small group of animals (the Dipnoi) which is intermediate between the fishes and the amphibia. *Ceratodus* has its home in the Mary and Burnett Rivers in Queensland, whilst its ally, *Lepidosiren*, is found in the Amazon, and another relative, *Protopterus*, flourishes in the waters of tropical Africa. Although unsuccessful in obtaining the eggs of *Ceratodus*, owing to the early season, Prof. Spencer was able, from a careful study of the surroundings under which the animal lives, to infer that its lung is of as great a service to it during the wet as during the dry season—a theory in direct opposition to the generally accepted one that the lung functions principally during the dry season, when the animal is inhabiting a mud-cocoon within the dry bed of the river.

THE additions to the Zoological Society's Gardens during the past week include a Macaque Monkey (*Macacus cynomolgus*) from India, presented by Mr. Oswald Norman; a Common Fox (*Canis vulpes*), British, presented by Mrs. Onslow Wakeford; two Four-horned Antelopes (*Tetracerus quadricornis* ♀♀) from India, presented by Mr. W. F. Sinclair; a Magellanic Goose (*Bernicla magellanica*) from the Falkland Islands, presented by the Rev. J. Chaloner; six Common Lizards (*Lacerta vivipara*), a Slowworm (*Anguis fragilis*), British, presented by Mr. Percy W. Farmborough; three Little Green-winged Doves (*Chalcophaps chrysoclhora*) from North Queensland, deposited; two Diamond Snakes (*Morelia spilotes*), a Punctulated Tree Snake (*Dendrophis punctulatus*), a Bearded Lizard (*Amphibolurus barbatus*), a Burton's Lizard (*Lialis burtoni*) from Australia, received in exchange; a Great Kangaroo (*Macropus giganteus*), born in the Gardens.

OUR ASTRONOMICAL COLUMN.

THE LATE NEW STAR IN AURIGA.—A very interesting table, showing a summary of all the observations made with regard to the magnitude of the late new star in Auriga, will be found in *L'Astronomie* for June. Commencing with the photographs taken by Prof. Pickering, when the Nova was very nearly of the 12th magnitude, the table shows a tremendous increase of brilliancy up to December 18, when it had reached a maximum, its magnitude then being about 4.5. From that date to March 2, the diminution in intensity was only very slight, being reduced only by about one magnitude, but, subsequent to this, the fading was nearly as rapid as the brightening, the star diminishing, on an average, a magnitude in a period of about 3.2 days.

PHOTOGRAPHIC MEASURES OF THE PLEIADES.—The third number of the "Contributions from the Observatory of Columbia College, New York," consists of the Rutherford photographic measures of the group of the Pleiades reduced by Mr. Harold Jacoby. These photographs were among the complete set of original negatives that were presented to this Observatory by Mr. Rutherford, and were taken in the years 1872 and 1874. This special group was chosen for reduction in order to investigate the accuracy obtainable by the methods employed, and the results show that the reduced places can be thoroughly relied upon. The table containing a catalogue of the stars in question gives the places for the epoch 1873.0, together with the precessional and secular variation. In the discussion of the results, the Yale and Königsberg heliometer measures have been used for the sake of comparison, and Mr. Jacoby clearly demonstrates that the photographic results are of very considerable accuracy. Taking the case of the right ascensions, the difference of the residuals, obtained from the Yale and New York results, and those from Yale and Königsberg, amounts in only two cases to as much as 0".50, while the mean may be roughly estimated as less than 0".25. That part of the table relating to the declinations furnishes equally satisfactory values, showing us that, for any future study regarding the determination of proper motions in this region, these photographic observations ought to be taken into account. The average probable errors in right ascension